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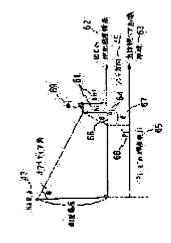
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## (54) TOPOGRAPHICAL MAP PREPARATION METHOD AND DEVICE BY PICTURE STEREOSCOPIC PROCESSING

## (57)Abstract:

PURPOSE: To prepare the smooth topographical map corresponding to reality by extracting not only the vicinities of the apexes of relief but also obvious valleys as feature points in the feature point extraction processing and utilizing the relation of the luminance value of picture elements and local tilted angle in the interpolation processing.

CONSTITUTION: The matching point of the neighboring two points on the same line in the direction of the range of the topographical map coordinate system picture and the local tilted angle ϕi is determined by the preminarily set function F(Ii) from the luminance value Ii of the picture element on a reference surface picture A corresponding to each grid point on the topographical map coordinate system picture put between the matching point of the two selected points. In this case, the



calculation is performed with the local tilted angle ϕ i determining the meter above the sea level of each grid point on the topographical coordinate system picture successively from the position of one side of the matching point of the two determined points. And the leveling processing is performed for making smooth pictures in the direction of azimuth. Thus, the smooth topographical map corresponding to reality can be prepared.

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